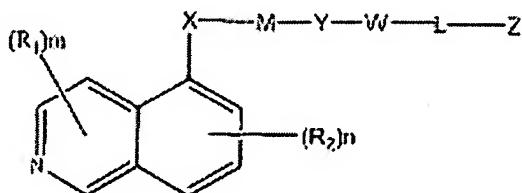


Amendments to the Claims

The following listing of claims replaces all prior listings and version of claims in this application.

1. (Currently Amended) A compound of Formula I:



Formula I

wherein:

R₁ and R₂ are independently selected from the group consisting of hydrogen, a lower alkyl group, a lower alkoxy group, substituted or unsubstituted phenyl group, a lower alkyl substituted with at least one substituent selected from the group consisting of a phenyl group, a halogen, hydroxyl, thiol, nitro, cyano, or amino group; m and n are each independently 0-3;

X is selected from the group consisting of $[[\text{SO}_2]]\text{SO}_2\text{-NH}$, S and O;

M represents substituted or unsubstituted alkylene of 1-4 carbon atoms;

Y is selected from the group consisting of amide, amine, urea, carbamate, hydrazine or sulfonamide;

Z is Arg—Pro—Arg—R₄—R₅—R₆—R₇;

R₄, R₅, and R₆ are each independently selected from the group consisting of threonine, serine, glutamic acid allyl ester, homocitrulline, lysine, methionine, norleucine, ornithine, arginine, glycine, diaminopropionic acid, diaminobutyric acid, GlyNH₂, and alanine; or are an N^a- ω -functionalized derivative of an amino acid selected from the group of glycine, alanine and tyrosine;

R₇ is selected from the group consisting of phenylalanine, homoleucine, norleucine, glutamic acid allyl ester;

W may be absent so that Y is connected to L or R₄, or W is N-(8-sulfonamide-5-isoquinoline) ethylenediamine; and

L may be absent so that W (if present) or Y is connected to R₄, or L is selected from the group consisting of glycine, β-alanine, phenylalanine, aminobutyric acid and aminopentanoic acid and connects W (if present) or Y with R₄.

2. (Previously Presented) The compound of claim 1 wherein, in Formula I:

R₁ and R₂ are independently selected from the group consisting of methyl, ethyl, ethoxy and dimethylamine;

m and n are each 1;

M represents substituted or unsubstituted alkylene of 2 carbon atoms; and

Y is selected from the group consisting of amide and amine.

Claims 3 to 6. (Cancelled)

7. (Currently Amended) The compound according to claim 1 wherein Z comprises~~comprising~~ the sequence:

Arg-Pro-Arg-Thr-Glu-(bAla-5-mercaptopropyl-isoquinoline)-Ser-Phe (SEQ ID NO: 3).

8. (Currently Amended) The compound according to claim 1 wherein Z comprises~~comprising~~ the sequence:

Arg-Pro-Arg-Thr-Glu-(5-mercaptopropyl-isoquinoline)-Ser-Phe (SEQ ID NO: 4).

9. (Currently Amended) The compound according to claim 1 wherein Z comprises~~comprising~~ the sequence:

Arg-Pro-Arg-Orn-Glu-(5-aminoethylsulfonamide-isoquinoline)-Ser-Phe (SEQ ID NO: 5).

10. (Currently Amended) The compound according to claim 1 wherein Z comprises~~comprising~~ the sequence:

Arg-Pro-Arg-Nva-Glu-(5-mercaptopropyl-isoquinoline)-Ser-Phe (SEQ ID NO: 6).

11. (Currently Amended) The compound according to claim 1 wherein Z comprises comprising the sequence:

Arg-Pro-Arg-Nle-Glu-(5-mercaptopropyl-isoquinoline)-Ser-Phe (SEQ ID NO: 7).

12. (Currently Amended) The compound according to claim 1 wherein Z comprises comprising the sequence:

Arg-Pro-Arg-Orn-Glu-(Gly-5-aminoethylsulfonamide)-Dab-Hol (SEQ ID NO: 8).

13. (Currently Amended) The compound according to claim 1 wherein Z comprises comprising the sequence:

Arg-Pro-Arg-Nle-Glu-(Gly-5-aminoethylsulfonamide)-Dab-Phe (SEQ ID NO: 9).

14. (Currently Amended) The compound according to claim 1 wherein Z comprises comprising the sequence:

Arg-Pro-Arg-Nle-Glu-(Gly-5-aminoethylsulfonamide)-Dab-Hol (SEQ ID NO: 10).

15. (Original) A pharmaceutical composition comprising as an active ingredient a compound according to claim 1, and a pharmaceutically acceptable diluent or carrier.

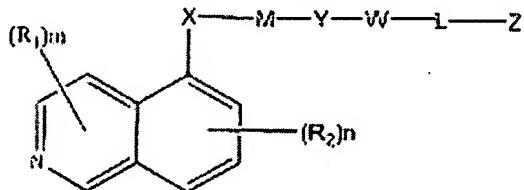
16. (Original) A protein kinase inhibitor comprising as an active ingredient a compound according to claim 1, and a pharmaceutically acceptable diluent or carrier.

17. (Original) A method of treatment of a disease comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 1.

18. (Original) The method according to claim 17 wherein the disease is selected from the group comprising cancers, diabetes, cardiovascular pathologies, hemorrhagic shock, obesity, inflammatory diseases, diseases of the central nervous system, and autoimmune diseases.

19. (Original) A method of diagnosis of a disease comprising administering to a patient in need thereof a diagnostically effective amount of a compound according to claim 1.

20. (Currently Amended) A compound of Formula I:



Formula I

wherein:

R₁ and R₂ are independently selected from the group consisting of hydrogen, a lower alkyl group, a lower alkoxy group, substituted or unsubstituted phenyl group, a lower alkyl substituted with at least one substituent selected from the group consisting of a phenyl group, a halogen, hydroxyl, thiol, nitro, cyano, or amino group; m and n are each independently 0-3;

X is selected from the group consisting of $[\text{S}0_2]\text{SO}_2\text{-NH}$, S and O;

M represents substituted or unsubstituted alkylene of 1-4 carbon atoms;

Y is selected from the group consisting of amide, amine, urea, carbamate, hydrazine or sulfonamide;

W is absent or is selected from the group consisting of substituted or unsubstituted alkylene, aliphatic, aromatic or heterocyclic moiety, of 1-18 carbon atoms;

L is absent or is selected from the group consisting of amide, amine, urea, carbamate, hydrazine or sulfonamide; and

Z is a peptide or peptidomimetic moiety comprising one of the following sequences:
sequence:

Arg-Pro-Arg-Thr-Glu-(bAla-5-mercaptopropyl-isoquinoline)-Ser-Phe (SEQ ID NO: 3);

Arg-Pro-Arg-Thr-Glu-(5-mercaptopropyl-isoquinoline)-Ser-Phe (SEQ ID NO: 4);

Arg-Pro-Arg-Orn-Glu-(5-aminoethylsulfonamide-isoquinoline)-Ser-Phe (SEQ ID NO: 5);

Arg-Pro-Arg-Nva-Glu-(5-mercaptopropyl-isoquinoline)-Ser-Phe (SEQ ID NO: 6);

Arg-Pro-Arg-Nle-Glu-(5-mercaptopropyl-isoquinoline)-Ser-Phe (SEQ ID NO: 7);
Arg-Pro-Arg-Orn-Glu-(Gly-5-aminoethylsulfonamide)-Dab-Hol (SEQ ID NO: 8);
Arg-Pro-Arg-Nle-Glu-(Gly-5-aminoethylsulfonamide)-Dab-Phe (SEQ ID NO: 9); or
Arg-Pro-Arg-Nle-Glu-(Gly-5-aminoethylsulfonamide)-Dab-Hol (SEQ ID NO: 10).

21. (Previously Presented) A pharmaceutical composition comprising as an active ingredient a compound according to claim 20, and a pharmaceutically acceptable diluent or carrier.

22. (Previously Presented) A protein kinase inhibitor comprising as an active ingredient a compound according to claim 20, and a pharmaceutically acceptable diluent or carrier.

23. (Previously Presented) A method of treatment of a disease comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 20.

24. (Previously Presented) The method according to claim 23 wherein the disease is selected from the group comprising cancers, diabetes, cardiovascular pathologies, hemorrhagic shock, obesity, inflammatory diseases, diseases of the central nervous system, and autoimmune diseases.